

Claims

I claim:

1: A dual surveillance camera system comprising:

- a) a first camera adapted for recording images under a first type of illumination;**
- b) a second camera adapted for recording images under a second type of illumination;**
- c) a first illuminator for providing the first type of illumination;**
- d) a second illuminator for providing the second type of illumination;**
- e) a first compartment having a first translucent viewing pane and containing the first camera and the second illuminator;**
- f) a second compartment having a second translucent viewing pane and containing the second camera and the first illuminator;**

in which the first and second compartments are separated from each other by an opaque wall preventing light from the first illuminator originating in the second compartment from reflecting off the second translucent pane directly to the first camera and preventing light from the second illuminator originating in the first compartment from reflecting off the first translucent pane directly to the second camera.

2. The dual surveillance camera system of Claim 1, in which the first camera records images when the second illuminator is turned on, the second camera records images when the first illuminator is turned on, and the system switches between using the first illuminator and the second illuminator, depending on which type of illumination provides the best recorded image via its respective camera in ambient conditions for the system from time to time.

3. The dual surveillance camera system of Claim 1, in which:

- a) the first camera is a colour camera for observation under visible light;
- b) the second camera is a monochrome camera for observation under infrared illumination;
- c) the first illuminator is a visible light illuminator;
- d) the second illuminator is an infrared illuminator.

4. The dual surveillance camera system of Claim 1, in which the first and second compartments are formed by a box with a dividing wall.
5. The dual surveillance camera system of Claim 1, in which the first and second compartments have cooling fins formed of a heat-conducting material.
6. The dual surveillance camera system of Claim 1, in which the first and second compartments are contained in a box that is a heat sink.
7. The dual surveillance camera system of Claim 4, in which the compartments are miniaturized to fit within standard electrical switch box dimensions in order to be adapted to be hidden behind a translucent decor switch plate.
8. The dual surveillance camera system of Claim 3, in which the colour camera has a lens optimized for colour viewing, with infra-red filtering.
9. The dual surveillance camera system of Claim 3, in which the monochrome camera has a lens optimized for monochrome viewing, with visible light filtering.

10. The dual surveillance camera system of Claim 3, in which the monochrome camera is supercharged electronically for infrared sensitivity.

11. The dual surveillance camera system of Claim 3, in which the infrared illuminator gives illumination in the range of from 805 to 995 nanometers of electromagnetic radiation.

12. The dual surveillance camera system of Claim 3, in which the colour camera and the monochrome camera each have an independent lens having a separate varifocal control to enable a switch of mode from day to night operation without a focal shift.

13. The dual surveillance camera system of Claim 2, in which

- a) the first camera is a colour camera for observation under visible light;
- b) the second camera is a monochrome camera for observation under infrared illumination;
- c) the first illuminator is a visible light illuminator;
- d) the second illuminator is an infrared illuminator.
- e) the first and second compartments are formed by a box with a dividing wall;

f) the box is a heat sink with cooling fins formed of a heat-conducting material;

14. The dual surveillance camera system of Claim 13, in which the compartments are miniaturized to fit within standard electrical switch box dimensions in order to be adapted to be hidden behind a translucent decor switch plate.

15. The dual surveillance camera system of Claim 13 in which:

a) the colour camera has a lens optimized for colour viewing, with infra-red filtering;

b) the monochrome camera has a lens optimized for monochrome viewing, with visible light filtering;

c) the monochrome camera is supercharged for infrared sensitivity;

d) the infrared illuminator gives illumination in the range of from 805 to 995 nanometers of electromagnetic radiation.

e) the colour camera and the monochrome camera each have an independent lens having a separate varifocal control to enable a switch of mode from day to night operation without a focal shift.